## Tomato Talk

(Terms, Acronyms, and Definitions)

<u>Acidity:</u> Measured on a scale of 1 to 14. 1 is very acidic, 14 is alkaline.

<u>Aseptic Processing:</u> A method of commercially sterilizing and then cooling product for aseptic packaging without microbial re-contamination.

<u>Bostwick / Viscosity:</u> A measure of flow (or resistance/viscosity). More viscosity has a low bostwick reading; less viscosity has a high bostwick reading.

**<u>Brix:</u>** The percent of solution solids calculated as sugar.

<u>Calcium Chloride</u>: Salts used for the firming of diced tomatoes which allows for better piece integrity.

<u>Citric Acid:</u> A form of acid added to tomatoes to increase acidity (decreases pH).

## CLFP (California League of Food Processors):

Represents the business interest of California's dynamic food processing industry.

COA (Certificate of Analysis): An authenticated document that lists and certifies the quality attributes and purity of processed tomato products. COAs are included with each shipment.

Cold Break Tomato Paste: Tomatoes that are heated between 140°F (60°C) and 160°F (71.1°C) to accelerate enzyme activity. Pectin breaks down resulting in less viscosity, high bostwick reading and a high syneresis tomato paste.

## CTGA (California Tomato Growers Association):

An agricultural bargaining association representing tomato growers in contract negotiations with the individual tomato processors.

<u>Dekatherm:</u> Unit of energy equal to 10 therms or one million British thermal units (MMBtu) or about 1 gigajoules (GJ).

<u>Direct Seed:</u> The practice of planting seeds directly into the ground in a row to create a tomato crop. Direct seeding has essentially been replaced with the more consistent and better yielding practice of transplanting.

<u>Drained Weight:</u> Weight of the tomato pieces after the packing medium (tomato juice) have been drained. This is represented as a net percent of the gross volume.

<u>Buried Drip Irrigation:</u> Placed approximately 12" underneath the soil of the beds. This allows for better water management by directing water right to the plant roots. Less water is used per acre in comparison to other methods. This method typically increases field yields.

<u>Finish</u>: Refers to the screen size used in the extractor during processing. It can also mean the appearance during testing; fine, medium or coarse.

FIR (Food Institute Reports): Weekly publication providing updates on the food industry (retail, food service, food processors, government, international, etc.).

Hot Break Tomato Paste: Tomatoes that are heated between 200°F (93.3°C) and 210°F (98.8°C) to inactivate the enzymes that would otherwise breakdown pectin. Pectin retention produces high viscosity, low bostwick readings and a low syneresis tomato paste.

Howard Mold Count or HMC: The technique recognized as the procedure for determining the extent to which a processed tomato product contains nonviable mold filaments.

<u>Insoluble Solids:</u> The skin, seeds and non-dissolvable fibers of a tomato.

<u>Juice:</u> The non-concentrated liquid extracted from mature tomatoes.

Late Season Premiums: A premium paid to the growers above the standard CTGA price to grow. Typically this is set towards the latter (mid-September forward) part of the harvest.

LU (Limited Use): A processed tomato that has limited use at the time of delivery. Limited use items would include but not be limited to (1) broken fruit to the point that the seed locules are visible, (2) more than 50% of the processed tomato is soft and mushy or (3) it has a soft water condition with more than 25% of the skin separated from the underlying flesh.

MOT (Material Other Than Tomatoes): Any material other than processed tomatoes such as extraneous material, dirt, and/or detached stems.

<u>Mold:</u> Fungus type microorganism whose growth on food is usually visible. Heat processing and sealing practices prevent growth.

Natural Gas: Natural gas is a fossil fuel formed when layers of buried plants, gases and animals are exposed to intense heat and pressure over thousands of years. It is the primary fuel source used by California Tomato Processors to manufacture aseptic tomato products.

NTSS (Natural Tomato Soluble Solids): Total dissolvable solids present in tomato concentrates.

<u>Pack Year:</u> June 1 of a given year through May 31 of the following year. The tomato harvest is typically July through October. A pack year is established to assign 12 months consumption to each tomato harvest (or pack) production.

<u>Pectin:</u> Natural polysaccharide constituent that is found in the cell wall of ripe tomatoes. High pectin will result in thicker, more viscous pulp, concentrates, sauces and pastes.

**<u>pH</u>**: A measure of acidity or alkalinity. Values range from 0 to 14. Neutral pH is 7.0, lower values are more acidic and higher values are more alkaline (basic).

<u>PTAB (Processing Tomato Advisory Board):</u> A neutral 3<sup>rd</sup> party agency that grades the quality of each tomato load before it enters the processor's facility.

<u>**Puree:**</u> Describes a product between 8% and 24% of natural tomato soluble solids.

**Serum Viscosity:** The measurement of soluble pectin.

<u>Solids (Soluble Solids):</u> Amount or percent of sugar in the solution.

<u>Syneresis:</u> Separation of a liquid from a gel (soluble solids from the insoluble solids).

 $\underline{\textbf{Texture:}} \ \, \textbf{Degree of firmness of a tomato particulate.}$ 

<u>Total Solids:</u> Measurement of NTSS plus insoluble solids.

<u>Transplant:</u> Tomato seedlings grown in greenhouses until 6"+ tall. They are then transplanted into the field. The advantages of transplants are that the plants are not susceptible to "Mother Nature" in the early stages, uses less seed and there is more control over what is grown.

<u>USDA NASS (United States Department of Agriculture</u> / <u>National Agricultural Statistics Service</u>): Publishes January crop intentions report, any updates to the crop estimate, as well as other information pertaining to the crop.

WPTC (World Processing Tomato Council): World organization of tomato processors, tomato growers, academic researchers and industry members. They host an annual convention that rotates in various production areas of the world. The WTC provides updates on world crop conditions, production, prices and other general industry news.

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